

IN THE CLAIMS

1. (currently amended) ~~An immunogenic~~ A composition comprising two or more components wherein each component consists of a substantially pure gonococcal antigen selected from the group consisting of: (1) an Outer Membrane Protein A (OmpA) protein; (2) an Outer Membrane Protein H (OmpH) protein; (3) a peptidyl-prolyl cis/trans isomerase (PPIase) protein; (4) an ngs41 protein; (5) an ngs117 protein; and (6) an adhesion penetration protein (App) protein,

wherein the OmpA protein comprises an amino acid sequence having 70% or more identity to SEQ ID NO:2,

wherein the OmpH protein comprises an amino acid sequence having 70% or more identity to SEQ ID NO:3,

wherein the PPIase protein comprises an amino acid sequence having 70% or more identity to SEQ ID NO:4,

wherein the ngs41 protein comprises an amino acid sequence having 70% or more identity to SEQ ID NO:5,

wherein the ngs117 protein comprises an amino acid sequence having 70% or more identity to SEQ ID NO:6; and

wherein the App protein comprises an amino acid sequence having 70% or more identity to SEQ ID NO:7.
2. (currently amended) The ~~immunogenic~~ composition of claim 1, ~~comprising an OmpA protein~~, wherein the composition comprises the OmpA protein ~~comprises~~

- ~~an amino acid sequence having 70% or more identity to SEQ ID NO:2.~~
3. (withdrawn-currently amended) The ~~immunogenic~~ composition of claim 1, ~~comprising an OmpH protein~~, wherein the composition comprises the OmpH protein ~~comprises an amino acid sequence having 70% or more identity to SEQ ID NO:3.~~
 4. (currently amended) The ~~immunogenic~~ composition of claim 1, ~~comprising a PPIase protein~~, wherein the composition comprises the PPIase protein ~~comprises an amino acid sequence having 70% or more identity to SEQ ID NO: 4.~~
 5. (withdrawn-currently amended) The ~~immunogenic~~ composition of claim 1, ~~comprising an Ngs41 protein~~, wherein the composition comprises the Ngs41 protein ~~comprises an amino acid sequence having 70% or more identity to SEQ ID NO:5.~~
 6. (withdrawn- currently amended) The ~~immunogenic~~ composition of claim 1, ~~comprising an Ngs117 protein~~, wherein the composition comprises the Ngs117 protein ~~comprises an amino acid sequence having 70% or more identity to SEQ ID NO:6.~~
 7. (withdrawn- currently amended) The ~~immunogenic~~ composition of claim 1, ~~comprising an App protein~~, wherein the composition comprises the App protein

- ~~comprises an amino acid sequence having 70% or more identity to SEQ ID NO:~~
~~7.~~
8. (withdrawn) A hybrid polypeptide of formula $\text{NH}_2\text{-A-}\{-\text{X-L-}\}_n\text{-B-COOH}$,
wherein: each X is an amino acid sequence as defined in any one of claims 2 to 7;
L is an optional linker amino acid sequence; A is an optional N terminal amino
acid sequence; B is an optional C terminal amino acid sequence; and n is 2, 3, 4,
5, 6, 7, 8, 9, 10, 11, 12, 13 14 or 15.
 9. (withdrawn) Nucleic acid encoding the hybrid polypeptide of claim 8.
 10. (withdrawn) A lipidated gonococcal OmpA protein.
 11. (withdrawn) A lipidated gonococcal PPIase protein.
 12. (withdrawn) A dimeric gonococcal OmpH protein.
 13. (withdrawn) A dimeric gonococcal PPIase protein.
 14. (withdrawn) A gonococcus strain, wherein one or more of the following
gonococcal antigens is knocked out: (1) OmpA; (2) OmpH; (3) PPIase; (4) ngs41;
(5) ngs117; and (6) App.

15. (currently amended) ~~An immunogenic~~ A composition, comprising ~~[[an]]~~ a substantially pure OmpA protein and a substantially pure PPlase protein,
wherein the OmpA protein comprises an amino acid sequence having
70% or more identity to SEQ ID NO:2; and
wherein the PPlase protein comprises an amino acid sequence having 70%
or more identity to SEQ ID NO:4.
16. (currently amended) The ~~immunogenic~~ composition of claim 15
wherein the OmpA protein comprises an amino acid sequence having 80%
or more identity to SEQ ID NO:2; and
wherein the PPlase protein comprises an amino acid sequence having
80% or more identity to SEQ ID NO:4.
17. (currently amended) The ~~immunogenic~~ composition of claim 15
wherein the OmpA protein comprises an amino acid sequence having 90%
or more identity to SEQ ID NO:2; and
wherein the PPlase protein comprises an amino acid sequence having 90% or
more identity to SEQ ID NO:4.
18. (currently amended) The ~~immunogenic~~ composition of claim 15
wherein the OmpA protein comprises an amino acid sequence having 95%
or more identity to SEQ ID NO:2; and
wherein the PPlase protein comprises an amino acid sequence having

95% or more identity to SEQ ID NO:4.

19. (currently amended) The ~~immunogenic~~ composition of claim 15
wherein the OmpA protein comprises the amino acid sequence shown in
SEQ ID NO:2; and
wherein the PPIase protein comprises the amino acid sequence shown
in SEQ ID NO:4.